

REMARKS

This amendment is responsive to the Final Office Action of June 18, 2010. Reconsideration and allowance of claims 1-13 and 15-19 are requested.

The Office Action

Claims 1-4 and 15-19 stand rejected under 35 U.S.C. § 112, first paragraph.

Claims 1, 4-13, 15-17 and 19 stand rejected under 35 U.S.C. § 103 based on the brief summary of the Fitzpatrick reference and the Maintz reference set forth in the background portion of the present application.

Claims 2 and 3 stand rejected under 35 U.S.C. § 103 over the summary of Fitzpatrick and Maintz, as further modified by Grimson (US 5,531,520).

Claims 5 and 7 stand rejected under 35 U.S.C. § 101.

Claim 18 stands rejected under 35 U.S.C. § 103 over the summary of Fitzpatrick and Maintz, as further modified by Oldroyd (US 6,738,532).

Telephone Interview

The applicants telephoned the Examiner in early September to request a Telephone Interview prior to the three-month period for response. The Examiner subsequently left a voicemail message indicating that a Telephone Interview would not be scheduled until after October 5. The applicant thanks the Examiner for the kind offer of a Telephone Interview after October 5. However, because the offered Interview is well after the three-month due date for responding to the Office Action, it was not possible to conduct the Interview prior to the filing of this response.

35 U.S.C. § 101

Claims 5 and 7 have been amended as suggested by the Examiner.

35 U.S.C. § 112, First Paragraph

As understood, the Examiner's rejection is focusing on the work "preset". The term "preset" finds antecedent basis at least on page 2, line 30 of the

present application and in the preferred embodiment, which defines the image planes as being oriented the head-foot, anterior-posterior, and right-left directions, which are predefined or preset directions which have a predefined or preset angular offset of 90°. Nonetheless, the applicant has amended claim 1 to delete “preset” to simplify the issues on appeal.

If the applicant has misunderstood the Examiner’s rejections, she is invited to telephone the undersigned to work out mutually agreeable language which would reduce the issues on appeal.

The Examiner’s rejection of claim 19 is not understood. Contrary to the assertions set forth in the rejection, claim 19 clearly sets forth two method steps, particularly (1) “aligning all of the first earlier and current reference images”, and (2) “aligning all of the second earlier and current reference images”. The preamble of claim 19, to which the Examiner alludes, provides antecedent basis for the plurality of first earlier reference slice images and the plurality of second earlier slice reference images.

The applicant is flexible regarding the exact wording of claim 19, and would be pleased to reword it in a manner which the application and the Examiner would both agree complies with the requirements of 35 U.S.C. § 112, second paragraph. The Examiner is invited to telephone the undersigned to discuss the language of claim 19 to develop mutually-agreeable language which could be filed in an Amendment accompanying the Appeal Brief to eliminate this issue on Appeal.

**The Claims Distinguish Patentably
Over the References of Record**

First, the applicant again reiterates that the statements made on page 1, line 27 – page 2, line 11 have been withdrawn.

Second, even if page 1, line 27 – page 2, line 11 are prior art, the Examiner has erroneously interpreted this brief summary by reading into it limitations and teachings found in the remaining portion of the present application.

Third, even if page 1, line 27 – page 2, line 11 of the application as filed are prior art, the claims all distinguish patentably and unobviously over them.

Page 1, line 27 – page 2, line 11 of the application as originally filed described trying to align one planar slice image with a prior planar slice image. As

pointed out on page 2, lines 12-21 of the application as filed, the previously described technique is inaccurate, particularly in the direction perpendicular to the slice.

Instead of one current slice image with one earlier slice image, claim 1 calls for at least first and second current slice images. Moreover, claim 1 calls for the first and second slice images to be differently oriented by an angular offset. In the Office Action, the Examiner fails to explain where, other than in the present specification, she is finding any teaching or suggestion of a second current image, much less any teaching or suggestion that such undisclosed second current slice image is oriented at an angular offset relative to the first slice image. Thus, the Examiner has failed to make a *prima facie* showing of obviousness.

Because claim 1 sets forth structures and relationships not set forth on page 1, line 27 – page 2, line 11 of the application as filed, and because the Examiner has failed to provide any teaching reference or other source of the missing elements and relationships, it is submitted that claim 1 distinguishes patentably over the references of record.

Moreover, the Examiner has failed to provide any teaching or motivation or any reason why one would modify page 1, line 27 – page 2, line 11 of the application as filed to add the additional claimed limitation and relationships, much less what advantage one might hope to achieve by these added elements and relationships.

The applicant, as disclosed starting on page 2, line 12 of the application as filed, has found that using at least two current slice images which are offset relative to teach other overcomes the problem of the lack of accuracy with the technique described on page 1, line 27 – page 2, line 11 of the application as filed. More specifically, as stated on page 2, lines 22-27 of the present application, the presently claimed technique has the advantage of allowing accurate calculation of the imaging parameters required for making the diagnostic slice image and it does this with only a minimal image-making time for making the reference slice images. Because claim 1 is different from page 1, line 27 – page 2, line 11 of the application as filed and achieves a distinct and clearly enunciated advantage thereover, it is submitted that claim 1 and the claims which depend therefrom distinguish patentably and unobviously over page 1, line 27 – page 2, line 11 of the application as filed.

Claim 5 calls for at least two current reference slice images and for those two current slice images to be perpendicular to each other. Page 1, line 27 – page 2, line 11 of the application as filed disclose only one current slice image. The Examiner fails to provide a teaching reference or other explanation regarding why one of ordinary skill in the art would be taught to replace the single current slice image with at least two, and for those two to be perpendicular. It is submitted that claim 5 and claim 7 dependent therefrom distinguish patentably and unobviously over page 1, line 27 – page 2, line 11 of the application as filed.

Claim 6 calls for at least two earlier slice images which have a first position and a non-parallel orientation relative to each other. Claim 6 further calls for at least two current reference slice images which have said first position and said non-parallel orientation relative to each other. Page 1, line 27 – page 2, line 11 of the application as filed discloses aligning a current reference slice image with an earlier reference slice image. There is no teaching or suggestion of a second slice image, much less any suggestion or teaching that the second reference and current slice images have the same non-parallel orientation. Accordingly, it is submitted that claim 6 and claims 8 and 9 dependent therefrom distinguish patentably over page 1, line 27 – page 2, line 11 of the application as filed.

Claim 10 calls for at least two current reference slice images which are oriented along at least two of the head-foot, anterior-posterior, and left-right directions, and at least two earlier reference slice images that are oriented along these same two directions. Page 1, line 27 – page 2, line 11 of the application as filed only discloses a single current reference slice image which is being aligned with an earlier reference slice image. The Examiner has failed to provide any teaching or suggestion that a second current or earlier slice image should be added to the technique described at page 1, line 27 – page 2, line 11, much less that these two images should be along at least two of the head-foot, anterior-posterior, and left-right directions. Accordingly, it is submitted that claim 10 and claims 11-13 dependent therefrom distinguish patentably and unobviously over the references of record.

**The Present Amendment
Should Be Entered**

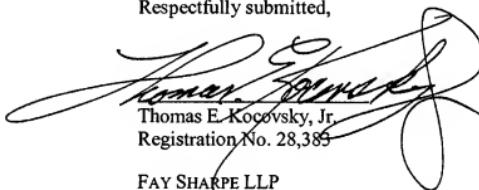
The present amendment should be entered as reducing the issues on Appeal.

CONCLUSION

For the reasons set forth above, it is submitted that claims 1-13 and 15-19 are now in condition for allowance. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, the Examiner is requested to telephone Thomas Kocovsky at 216.363.9000.

Respectfully submitted,



Thomas E. Kocovsky, Jr.
Registration No. 28,385

FAY SHARPE LLP
The Halle Building, 5th Floor
1228 Euclid Avenue
Cleveland, OH 44115-1843
Telephone: 216.363.9000 (main)
Telephone: 216.363.9122 (direct)
Facsimile: 216.363.9001
E-Mail: tkocovsky@faysharpe.com